© 1993 American Statistical Association and
the American Society for Quality Control

TECHNOMETRICS

CONTENTS OF VOLUME 35

NUMBERS 137–140

Articles.....1, 109, 243, 337
Book Reviews.....83, 219, 321, 449
Corrections.....105, 241
Editorial Collaborators.....467

Index to Volume 35
Articles, by Author.....469
Books Reviewed, by Author.....470
Book Reviewers.....473

INDEX TO VOLUME 35 (1993)

Articles, by Author

Arbia, Giuseppe (*see* Haining, Robert)
Bancroft, Bruce A., and Hobbs, Gerald R., "Mine Product Variability Estimators With Emphasis on the Case of Coal," 390
Blackwood, Larry G. (*see* Christensen, Ronald)
Chang, Myron N., and Rao, P. V., "Improved Estimation of Survival Functions in the New-Better-Than-Used Class," 192
Cheng, Ching-Shui, and Li, Chang-Chung, "Constructing Orthogonal Fractional Factorial Designs When Some Factor-Level Combinations Are Debarred," 277
Christensen, Ronald, and Blackwood, Larry G., "Tests for Precision and Accuracy of Multiple Measuring Devices," 411
Cohen, Arthur, and Sackrowitz, Harold B., "Evaluating Tests for Increasing Intensity of a Poisson Process," 446
Coleman, David E., and Montgomery, Douglas C., "A Systematic Approach to Planning for a Designed Industrial Experiment," 1; Response, 25
Cook, R. Dennis, "Exploring Partial Residual Plots," 351
Cornell, John A. (*see* Smith, Wendell F.)
Dean, A. M. (*see* Draper, N. R.)
Doganaksoy, Necip, and Schmee, Josef, "Comparisons of Approximate Confidence Intervals for Distributions Used in Life-Data Analysis," 175
Draper, N. R., Lewis, S. M., John, P. W. M., Prescott, P., Dean, A. M., and Tuck, M. G., "Mixture Designs for Four Components in Orthogonal Blocks," 268
Edwards, Don (*see* Sa, Ping)
Faltin, Frederick W. (*see* Tucker, William T.)
Frank, Ildiko E., and Friedman, Jerome H., "A Statistical View of Some Chemometrics Regression Tools," 109; Response, 143
Friedman, Jerome H. (*see* Frank, Ildiko E.)
Grimshaw, Scott D., "Computing Maximum Likelihood Estimates for the Generalized Pareto Distribution," 185
Gunst, Richard F., and Kelly, Nelson A., "Captive-Air Irradiation Experiments on Ozone Formation in Southern California," 256
Gunter, Berton H., Discussion of Coleman, David E., and Montgomery, Douglas C., 13
Haaland, Perry D., and O'Connell, M. A., Discussion of Coleman, David E., and Montgomery, Douglas C., 17
Hahn, Gerald J., Discussion of Coleman, David E., and Montgomery, Douglas C., 15
Haining, Robert, and Arbia, Giuseppe, "Error Propagation Through Map Operations," 293
Hamada, Michael (*see* Taam, Winson)
Handcock, Mark S., and Stein, Michael L., "A Bayesian Analysis of Kriging," 403
Hastie, Trevor, and Mallows, Colin, Discussion of Frank, Ildiko E., and Friedman, Jerome H., 140
Hayduk, Leslie (*see* Offodile, O. Felix)
Hobbs, Gerald R. (*see* Bancroft, Bruce A.)
Jacroux, Mike, "On the Construction of Minimal Partially Replicated Orthogonal Main-Effect Plans," 32
Jensen, Karen L., and Vardeman, Stephen B., "Optimal Adjustment in the Presence of Deterministic Process Drift and Random Adjustment Error," 376
John, P. W. M. (*see* Draper, N. R.)
Kelly, Nelson A. (*see* Gunst, Richard F.)
Kundu, Debasis, "Estimating the Parameters of Undamped Exponential Signals," 215
Kvam, Paul H., and Samaniego, Francisco J., "Life Testing in Variably Scaled Environments," 306
Leon, Ramon V., Shoemaker, Anne C., and Tsui, Kwok-Leung, Discussion of Coleman, David E., and Montgomery, Douglas C., 21

Lewis, S. M. (*see* Draper, N. R.)
Li, Chang-Chung (*see* Cheng, Ching-Shui)
Lin, Dennis K. J., "A New Class of Supersaturated Designs," 28
Lin, Dennis K. J., "Another Look at First-Order Saturated Designs: The *p*-Efficient Designs," 284
Lu, C. Joseph, and Meeker, William Q., "Using Degradation Measures to Estimate a Time-to-Failure Distribution," 161
Mallows, Colin (*see* Hastie, Trevor)
Meeker, William Q. (*see* Lu, C. Joseph)
Mitchell, Toby J. (*see* Morris, Max D.)
Montgomery, Douglas C. (*see* Coleman, David E.)
Morris, Max D., Mitchell, Toby J., and Ylvisaker, Donald, "Bayesian Design and Analysis of Computer Experiments: Use of Derivatives in Surface Prediction," 243
Nayebpour, Mohamad R., and Woodall, William H., "An Analysis of Taguchi's On-Line Quality-Monitoring Procedures for Attributes," 53
Nelson, Peter R., "Additional Uses for the Analysis of Means and Extended Tables of Critical Values," 61
O'Connell, M. A. (*see* Haaland, Perry D.)
Offodile, O. Felix, Ugwu, Kingsley O., and Hayduk, Leslie, "Analysis of the Causal Structures Linking Process Variables to Robot Repeatability and Accuracy," 421
Peterson, John J., "A General Approach to Ridge Analysis With Confidence Intervals," 204
Prescott, P. (*see* Draper, N. R.)
Rao, P. V. (*see* Chang, Myron N.)
Rocke, David M., "On the Beta Transformation Family," 72
Sa, Ping, and Edwards, Don, "Multiple Comparisons With a Control in Response Surface Methodology," 436
Sackrowitz, Harold B. (*see* Cohen, Arthur)
Samaniego, Francisco J. (*see* Kvam, Paul H.)
Schmee, Josef (*see* Doganaksoy, Necip)
Shoemaker, Anne C. (*see* Leon, Ramon V.)
Smith, Wendell F., and Cornell, John A., "Biplot Displays for Looking at Multiple Response Data in Mixture Experiments," 337
Spurrier, John D., "Comparison of Simultaneous Confidence Bands for Quadratic Regression Over a Finite Interval," 315
Stein, Michael L. (*see* Handcock, Mark S.)
Taam, Winson, and Hamada, Michael, "Detecting Spatial Effects From Factorial Experiments: An Application From Integrated-Circuit Manufacturing," 149
Tsui, Kwok-Leung (*see* Leon, Ramon V.)
Tuck, M. G. (*see* Draper, N. R.)
Tucker, William T., Faltin, Frederick W., and Vander Wiel, Scott A., "Algorithmic Statistical Process Control: An Elaboration," 363
Ugwu, Kingsley O. (*see* Offodile, O. Felix)
Vander Wiel, Scott A. (*see* Tucker, William T.)
Vardeman, Stephen B. (*see* Jensen, Karen L.)
Wold, Svante, Discussion of Frank, Ildiko E., and Friedman, Jerome H., 136
Woodall, William H. (*see* Nayebpour, Mohamad R.)
Yashchin, Emmanuel, "Performance of CUSUM Control Schemes for Serially Correlated Observations," 37
Ylvisaker, Donald (*see* Morris, Max D.)

BOOKS REVIEWED, BY AUTHOR

Aft, Lawrence, *Fundamentals of Industrial Quality Control*, 232
Arnold, Barry C., Balakrishnan, N., and Nagaraja, H. N., *A First Course in Order Statistics*, 452
Atkinson, A. C., and Donev, A. N., *Optimum Experimental Designs*, 450
Bajaria, Hans J., and Copp, Richard P., *Statistical Problem Solving*, 234
Balakrishnan, N. (editor), *Handbook of the Logistic Distribution*, 236
Balakrishnan, N. (*see* Arnold, Barry C.)
Bare, Bebe (*see* Bare, I. Louis)
Bare, I. Louis, and Bare, Bebe, *The Self-Instructional Route to Statistical Process Control and Just-in-Time Manufacturing*, 92
Barnett, Vic, *Sample Survey Principles and Methods*, 235
Barrentine, Larry B., *Concepts for R&R Studies*, 93
Belsley, David A., *Conditioning Diagnostics: Collinearity and Weak Data in Regression*, 85
Benzecri, J. P., *Correspondence Analysis Handbook*, 103
Berger, R. (*see* Pyzdek, T.)
Bhattacharyya, Gouri K. (*see* Johnson, Richard A.)
Biemer, P., Groves, R., Lyberg, L., Mathiowetz, N., and Sudman, S. (editors), *Measurement Errors in Surveys*, 100
Billard, Lynn (*see* LePage, Raoul)
Brereton, Richard G., *Chemometrics: Applications of Mathematics and Statistics to Laboratory Systems*, 330
Brettner, Donald (*see* Fasser, Yefim)
Breyfogle, Forrest W., III, *Statistical Methods for Testing, Development, and Manufacturing*, 455
Brown, Don W. (*see* Wetherill, G. Barrie)
Buja, A., and Tukey, P. (editors), *Computing and Graphics in Statistics*, 463
Bunday, Brian D., *Statistical Methods in Reliability Theory and Practice*, 95
Burdick, Richard K., and Graybill, Franklin A.,

Confidence Intervals on Variance Components, 328
Carr, Wendell E., *Statistical Problem Solving*, 333
Casella, George (*see* Searle, Shayle R.)
Chakraborti, S. (*see* Gibbons, J.)
Chakraborty, R. (*see* Rao, C. R.)
Chambers, D. (*see* Wheeler, D.)
Chambers, John M., and Hastie, Trevor J. (editors), *Statistical Models in S*, 227
Chang, Tsong-how (*see* DeVor, Richard E.)
Chaudhuri, A., and Stenger, H., *Survey Sampling*, 240
Clements, R. B., *The Experimenter's Companion*, 94
Cohen, A. Clifford, *Truncated and Censored Samples, Theory and Applications*, 220
Collett, D., *Modelling Binary Data*, 224
Comrey, Andrew, and Lee, Howard B., *A First Course in Factor Analysis*, 453
Copp, Richard P. (*see* Bajaria, Hans J.)
Cottman, R., *Total Engineering Quality Management*, 240
Cound, Dana, *A Leader's Journey to Quality*, 102
Cox, D. R., and Isham, V. S. (editors), *Stochastic Processes*, 329
Cox, D. R., and Titterington, D. M. (editors), *Complex Stochastic Systems*, 461
Cressie, Noel A. C., *Statistics for Spatial Data*, 322
Czerminski, Jurand, Iwasiewicz, Andrzej, Paszek, Zbigniew, and Sikorski, Andrzej, *Statistical Methods in Applied Chemistry*, 228
Davis, T. P. (*see* Groves, D. M.)
Desu, M. M., and Raghavarao, D., *Sample Size Methodology*, 95
DeToro, I. (*see* Tenner, A.)
DeVor, Richard E., Chang, Tsong-how, and Sutherland, John W., *Statistical Quality Design and Control*, 331
Donev, A. N. (*see* Atkinson, A. C.)
Doty, Leonard A., *Statistical Process Control*, 90
Dovich, Robert A., *Quality Engineering Statistics*, 332
Dux, J., *Handbook of Quality Assurance for the Analytical Chemistry Laboratory*, 466
Eddy, David M., Hasselblad, Vic, and Shachter, Ross, *Meta-Analysis by the Confidence Profile Method: The Statistical Synthesis of Evidence*, 237
Evans, David H., *Probability and Its Applications for Engineers*, 459
Everitt, B. S., *The Analysis of Contingency Tables*, 327
Fasser, Yefim, and Brettner, Donald, *Process Improvement in the Electronics Industry*, 334
Fellers, Gary, *The Deming Vision: SPC/TQM for Administrators*, 456
Foreman, E. K., *Survey Sampling Principles*, 100
Fox, John, *Regression Diagnostics*, 99
Fox, M. (*see* Odeh, R. E.)
Friendly, M., *SAS System for Statistical Graphics*, 101
Gibbons, J., and Chakraborti, S., *Nonparametric Statistical Inference*, 239
Girden, E., *ANOVA: Repeated Measures*, 464
Graybill, Franklin A. (*see* Burdick, Richard K.)
Groves, D. M., and Davis, T. P., *Engineering, Quality and Experimental Design*, 454
Groves, R. (*see* Biemer, P.)
Gulezian, Ronald, *Process Control—Statistical Principles and Tools*, 230
Hahn, Gerald J., and Meeker, William Q., *Statistical Intervals: A Guide for Practitioners*, 323
Härdle, Wolfgang, *Applied Nonparametric Regression*, 225
Harris, D. (*see* Schuler, R.)
Hasselblad, Vic (*see* Eddy, David M.)
Hastie, Trevor J. (*see* Chambers, John M.)
Hedayat, A., and Sinha, B., *Design and Inference in Finite Population Sampling*, 463
Hines, William W., and Montgomery, Douglas C., *Probability and Statistics in Engineering and Management Science*, 238
Hinkley, D., Reid, N., and Snell, E. J. (editors), *Statistical Theory and Modeling*, 98
Hoaglin, David C., Mosteller, Frederick, and Tukey, John W. (editors), *Fundamentals of Exploratory Analysis of Variance*, 89
Hogg, R., and Ledolter, J., *Applied Statistics for Engineers and Physical Scientists*, 463
Hunt, J. D. R., Phillips, O. M., and Williams, D. (editors), *Turbulence and Stochastic Processes: Kolmogorov's Ideas 50 Years On*, 330
Isham, V. S. (*see* Cox, D. R.)
Iwasiewicz, Andrzej (*see* Czerminski, Jurand)
Jackson, J. Edward, *A User's Guide to Principal Components*, 84
Jobson, J. D., *Applied Multivariate Data Analysis, Volume II: Categorical and Multivariate Methods*, 326
John, Peter W. M., *Statistical Methods in Engineering and Quality Assurance*, 91
Johnson, Norman L., Kotz, Samuel, and Wu, Xishi, *Inspection Errors for Attributes in Quality Control*, 232
Johnson, Richard A., and Bhattacharyya, Gouri K., *Statistics, Principles and Methods*, 237
Kalsbeek, W. (*see* Lessler, J.)
Kececioglu, Dimitri, *Reliability Engineering Handbook, Volume 2*, 94
Kidd, George, *Quality at Work in Research and Development*, 102
Kleijnen, Jack, and Van Groendaal, Willem, *Simulation: A Statistical Perspective*, 453
Klein, Robert A. (*see* McNeese, William H.)

Kocherlakota, Kathleen (*see* Kocherlakota, Subrahmaniam)
Kocherlakota, Subrahmaniam, and Kocherlakota, Kathleen, *Bivariate Discrete Distributions*, 328
Koenig, D., *Control and Analysis of Noisy Processes*, 231
Kotz, Samuel (*see* Johnson, Norman L.)
Krishnamoorthi, K. S., *Reliability Methods for Engineers*, 333
Krumm, L. (*see* Miller, G.)
Kuo, W., and Pierson, M. (editors), *Quality Through Engineering Design*, 465
Lamprecht, J., *ISO 9000*, 240
Ledolter, J. (*see* Hogg, R.)
Lee, Elisa T., *Statistical Methods for Survival Data Analysis*, 101
Lee, Howard B. (*see* Comrey, Andrew)
LePage, Raoul, and Billard, Lynn (editors), *Exploring the Limits of Bootstrap*, 226
Lessler, J., and Kalsbeek, W., *Nonsampling Error in Surveys*, 464
Lindman, Harold R., *Analysis of Variance in Experimental Design*, 222
Loehlin, J., *Latent Variable Models*, 465
Lunn, A. D., and McNeil, D. R., *Computer-Interactive Data Analysis*, 459
Lütkepohl, Helmut, *Introduction to Multiple Time Series Analysis*, 88
Lyberg, L. (*see* Biemer, P.)
Mager, Peter P., *Design Statistics in Pharmacochemistry*, 331
Mandel, John, *Evaluation and Control of Measurements*, 223
Manly, Bryan F. J., *Randomization and Monte Carlo Methods in Biology*, 96
Mann, Prem, *Introductory Statistics*, 100
Mathiowetz, N. (*see* Biemer, P.)
Mazu, Michael J., *Regression Analysis by Example*, 86
McCulloch, Charles E. (*see* Searle, Shayle R.)
McLachlan, Geoffrey J., *Discriminant Analysis and Statistical Pattern Recognition*, 324
McNeese, William H., and Klein, Robert A., *Statistical Methods for Process Industries*, 229
McNeil, D. R. (*see* Lunn, A. D.)
Meeker, William Q. (*see* Hahn, Gerald J.)
Miller, G., and Krumm, L., *The Whats, Whys, and Hows of Quality Improvement*, 241
Montgomery, Douglas C. (*see* Hines, William W.)
Montgomery, Douglas C., and Peck, Elizabeth A., *Introduction to Linear Regression Analysis*, 224
Morgan, E., *Chemometrics: Experimental Design*, 99
Mosteller, Frederick (*see* Hoaglin, David C.)
Motiska, P. (*see* Shilliff, K.)
Nagaraja, H. N. (*see* Arnold, Barry C.)
Narahari, Y. (*see* Viswanadham, N.)
The National Research Council, *Combining Information: Statistical Issues and Opportunities for Research*, 462
Odeh, R. E., and Fox, M., *Sample Size Choice: Charts for Experiments With Linear Models*, 234
Pandit, Sudhakar M., *Modal and Spectrum Analysis: Data Dependent Systems in State Space*, 228
Pankratz, Alan, *Forecasting With Dynamic Regression Models*, 87
Paszek, Zbegniew (*see* Czerminski, Jurand)
Peck, Elizabeth A. (*see* Montgomery, Douglas C.)
Phillips, O. M. (*see* Hunt, J. D. R.)
Pierson, M. (*see* Kuo, W.)
Pyzdek, T., and Berger, R. (editors), *Quality Engineering Handbook*, 98
Raghavarao, D. (*see* Desu, M. M.)
Rao, C. R., and Chakraborty, R. (editors), *Statistical Methods in Biological and Medical Sciences*, 465
Reid, N. (*see* Hinkley, D.)
Resnick, Sidney I., *Adventures in Stochastic Processes*, 461
Roberts, Harry, *Data Analysis for Managers*, 99
Roe, Byron P., *Probability and Statistics in Experimental Physics*, 460
Salsburg, David, *Statistics for Toxicologists*, 465
Saville, D., and Wood, G., *Statistical Methods: The Geometric Approach*, 10
Scherkenbach, W., *Deming's Road to Continual Improvement*, 233
Schuler, R., and Harris, D., *Managing Quality*, 466
Scott, David W., *Multivariate Density Estimation, Theory, Practice, and Visualization*, 451
Searle, Shayle R., Casella, George, and McCulloch, Charles E., *Variance Components*, 221
Shachter, Ross (*see* Eddy, David M.)
Shecter, E. S., *Managing for World-Class Quality: A Primer for Executives and Managers*, 335
Shilliff, K., and Motiska, P., *The Team Approach to Quality*, 240
Sikorski, Andrzej (*see* Czerminski, Jurand)
Sinha, B. (*see* Hedayat, A.)
Snell, E. J. (*see* Hinkley, D.)
Stahel, Werner, and Weisberg, Sanford (editors), *Directions in Robust Statistics and Diagnostics (Parts 1 and 2)*, 103
Stenger, H. (*see* Chaudhuri, A.)
Stevens, James, *Intermediate Statistics, a Modern Approach*, 98
Sudman, S. (*see* Biemer, P.)
Sutherland, John W. (*see* DeVor, Richard E.)
Taylor, John Keenan, *Statistical Techniques for Data Analysis*, 332
Taylor, Wayne A., *Guide to Acceptance Sampling*, 458; *Optimization and Variation Reduction in Quality*, 92
Teboul, James, *Managing Quality Dynamics*, 102

Tenner, A., and DeToro, I., *Total Quality Management*, 466
Thompson, Steven, *Sampling*, 324
Titterington, D. M. (*see* Cox, D. R.)
Tukey, John W. (*see* Hoaglin, David C.)
Tukey, P. (*see* Buja, A.)
Van Groendaal, Willem (*see* Kleijnen, Jack)
Viswanadham, N., and Narahari, Y., *Performance Modeling of Automated Manufacturing Systems*, 456
Wang, Chamont, *Sense and Nonsense of Statistical Inference*, 462
Weisberg, Sanford (*see* Stahel, Werner)
Westfall, Peter H., and Young, S. Stanley, *Resampling-Based Multiple Testing: Examples and Methods for p-Value Adjustment*, 450
Wetherill, G. Barrie, and Brown, Don W., *Statistical Process Control—Theory and Practice*, 89
Wheeler, Donald J., *Short Run SPC*, 233
Wheeler, D., and Chambers, D., *Understanding Statistical Process Control*, 101
Williams, D. (*see* Hunt, J. D. R.)
Wu, Xishi (*see* Johnson, Norman L.)
Young, S. Stanley (*see* Westfall, Peter H.)
Zacks, Shelemyahu, *Introduction to Reliability Analysis: Probability Models and Statistical Methods*, 221
Zimmerman, Steven M., and Zimmerman, Robert N., *SPC Using Lotus 1-2-3*, 336, 457

BOOK REVIEWERS

Adams, Benjamin M., 90
Albert, Jim, 327
Armitage, Stanley J., 229
Balestracci, Davis, 98
Benbow, Don, 332
Booth, David E., 237
Brugger, Richard M., 91, 459
Carlson, Richard R., 232
Chaubey, Yogendra P., 450
Coleman, David E., 89
Cox, Dennis D., 228
DasGupta, A., 462
De Veaux, Richard D., 322
Doganaksoy, Necip, 334
Dovich, Robert A., 332
Emptage, Michael R., 234
Eubank, R. L., 225
Farnsworth, David L., 452
Frey, Michael, 329
Galway, Lionel, 460
Ghosh, Subir, 221
Glosup, Jeffrey, 236
Godsey, E. B., 233
Goldstein, Richard, 85
Hansen, James L., 230
Hesterberg, Tim, 227
Jensen, Karen L., 93
Jolliffe, Ian T., 88
Jones, Jason R., 323
Kalemkarian, George S., 92
Katti, S. K., and Ries, Larry, 226
Kianifard, Farid, 222, 326
King, Dennis W., 331
Kirmani, Syed N. U. A., 456
Kushler, Robert, 457
Lee, Kwan R., 333
Leigh, Stefan, 84
Lenth, Russell V., 237
Lewis, Richard A., 92
Lordo, Robert A., 453
Mazu, Michael J., 86
Minton, Paul D., 235
Morgan, Carolyn, 220
Morton, Michael J., 228
Narayanan, A., 238
Niknian, Minoo, 96
Polsky, Boris R., 455
Porter, Donald R., 224
Potter, Randall W., 328
Price, Barbara, 453
Propst, Annabeth L., 234, 456
Raghavachari, M., 330
Ramsey, Philip H., 451
Rayens, William S., 324
Read, Sherry L., 335
Ries, Larry (*see* Katti, S. K.)
Rigdon, Steven E., 221
Rollins, Derrick K., 232
Rozum, Michael A., 223
Rutherford, James A., 94
Saccucci, Michael S., 454
Sartori, David E., 336
Schneider, Helmut, 94
Schuenemeyer, John H., 89
Seaman, John W., Jr., 95
Shanmugam, Ramalingam, 95
Smith, Patricia L., 330
Srinivasan, Cidambi, 462
Tang, Kwei, 458
Thomas, Edward V., 224
Wehrly, Thomas, 461
Welch, Michael E., 328
Wendelberger, Joanne R., 461
Wheeler, Robert E., 450
Wincek, Michael A., 87
Yeh, Chyon-Hwa, 331
Ziegel, Eric R., 98, 231, 233, 239, 324, 466
Zinkgraf, Stephen A., 459